

Title (en)  
Antenna and antenna frame for IC card

Title (de)  
Antenne und Antennenrahmen für Chipkarte

Title (fr)  
Antenne et cadre d'antenne pour une carte à puce

Publication  
**EP 1191478 A1 20020327 (EN)**

Application  
**EP 01307346 A 20010829**

Priority  
JP 2000263855 A 20000831

Abstract (en)  
An antenna (10) for a non-contact type IC card includes a plane coil (12) formed by punching or etching a thin metal plate in such a manner that a conductor line (14) is wound several times in substantially the same plane. At least one projection (15) is integrally formed with the conductor (14) and extends therefrom inwardly or outwardly so as not to contact an adjacent loop of the conductor line (14). The projection (15) is located at any desired position to be used as a suction pad, an alignment mark or a positioning guide when said plane coil is positioned.

IPC 1-7  
**G06K 19/077**

IPC 8 full level  
**B42D 25/305** (2014.01); **B42D 25/47** (2014.01); **G06K 19/07** (2006.01); **G06K 19/077** (2006.01); **H01Q 1/22** (2006.01); **H01Q 1/38** (2006.01); **H01Q 7/00** (2006.01); **H04B 5/48** (2024.01)

CPC (source: EP US)  
**G06K 19/07749** (2013.01 - EP US); **G06K 19/07779** (2013.01 - EP US); **G06K 19/07783** (2013.01 - EP US); **H01Q 1/2225** (2013.01 - EP US); **H01Q 1/38** (2013.01 - EP US); **H01Q 7/00** (2013.01 - EP US)

Citation (search report)

- [XY] EP 0902472 A2 19990317 - MICROCHIP TECH INC [US]
- [Y] EP 0992940 A2 20000412 - SHINKO ELECTRIC IND CO [JP]
- [A] US 5946198 A 19990831 - HOPPE JOACHIM [DE], et al

Designated contracting state (EPC)  
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**US 2002024475 A1 20020228**; **US 6556175 B2 20030429**; EP 1191478 A1 20020327; JP 2002074301 A 20020315

DOCDB simple family (application)  
**US 94057001 A 20010828**; EP 01307346 A 20010829; JP 2000263855 A 20000831